

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

**Southern Natural Gas Co  
Shadyside Compressor Station  
Centerville, Saint Mary Parish, Louisiana  
Agency Interest Number: 4198  
Activity Number: PER20090001  
Proposed Permit Number: 2660-00035-V2**

**I. APPLICANT**

**Company:**

Southern Natural Gas Co  
42621 Hwy 16  
Franklinton, Louisiana 70438

**Facility:**

Shadyside Compressor Station  
off Hwy 182 3 Mi SE of  
Centerville, Saint Mary Parish, Louisiana  
Lat: 29° 43' 30"  
Long: 91° 25' 1"

**II. FACILITY AND CURRENT PERMIT STATUS**

Shadyside Compressor Station is a natural gas pipeline compressor station and provides recompression capabilities. The station utilizes five (5) natural gas-fired reciprocating internal combustion compressor engines to transport natural gas along the Southern Natural Gas (SNG) pipeline system. Natural gas enters the Shadyside pipeline at an average suction pressure of 750 psig. Prior to entering the compressor suction, natural gas flows through a mechanical separator that removes quantities of liquids or incoming sediment. The separator is a closed system and does not vent to the atmosphere. The separated liquid (condensate) accumulates in the bottom of the separator until it reaches a set level, at which time the condensate is routed to a storage tank. The condensate is subsequently shipped offsite via tank trucks for disposal. The natural gas is routed to the compressor engines for compression to an average of 950 psig and transmitted via pipeline downstream.

Southern Natural Gas Co - Shadyside Compressor Station is a designated Part 70 source.

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### **III. PROPOSED PROJECT/PERMIT INFORMATION**

#### **Application**

A permit application was submitted on September 29, 2009 requesting a Part 70 operating permit renewal and minor modification for the Shadyside Compressor Station. Additional information dated November 17, 2009 was also submitted.

#### **Project**

Southern Natural Gas is not proposing any physical modifications to the existing significant emission sources located at Shadyside. Some small revisions to the emission rates are a result of minor updates to emission factors, and emission source stack parameters.

#### **Proposed Permit**

Permit 2660-00035-V2 will be the renewal and minor modification of Part 70 operating permit 2660-00035-V1 for the Shadyside Compressor Station.

#### **Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM <sub>10</sub>	13.47	15.60	+2.13
SO <sub>2</sub>	0.19	0.22	+0.03
NO <sub>x</sub>	1436.57	1436.57	-
CO	355.05	355.05	-
VOC *	44.23	49.64	+5.41

### **IV REGULATORY ANALYSIS**

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

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**Applicability and Exemptions of Selected Subject Items**

<b>Explanation for Exemption Status or Non-Applicability of a Source</b>		
<b>ID No:</b>	<b>Requirement</b>	<b>Notes</b>
UNF0001 – Entire Facility	Chemical Accident Prevention and Minimization of Consequences 40 CFR 68 and LAC 33:III.Chapter 59	DOES NOT APPLY – Facility contains no sources which produce, handle, process or store substances listed in 40 CFR 68.130 in quantities greater than the threshold limits.
	NSPS: Equipment Leaks of VOC from Onshore Natural Gas Processing Plants – 40 CFR 60 Subpart KKK	DOES NOT APPLY – Facility is not a Natural Gas processing plant.
	NESHAP: Oil and Natural Gas Production Facilities 40 CFR 63 Subpart HH	DOES NOT APPLY – Facility is not a natural gas production facility
	NESHAP: Natural Gas Transmission and Storage 40 CFR 63 Subpart HHH	EXEMPT – The facility does not operate an affected source and therefore is not subject to any applicable control requirements.
EQT 1 - 6 Compressor Engines	NSPS: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60 Subpart JJJJ	DOES NOT APPLY – These engines have not been constructed, reconstructed or modified after June 12, 2006.
	NESHAP: Stationary Reciprocating Internal Combustion Engines 40 CFR 63 Subpart ZZZZ	DOES NOT APPLY – Existing spark-ignited 2-stroke and 4-stroke lean burn engines constructed prior to December 19, 2002 are not required to comply with the requirements of this subpart under the provision of 63.6590(c)
	Emissions Standards for Sulfur Dioxide LAC 33:III Chapter 15	DOES NOT APPLY – The provisions of this regulation do not apply to single point sources that have the potential to emit less than 5 tpy SO <sub>2</sub> .

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<b>Explanation for Exemption Status or Non-Applicability of a Source</b>		
<b>ID No:</b>	<b>Requirement</b>	<b>Notes</b>
EQT 1 - 6 Compressor Engines	Comprehensive Toxic Air Pollutant Emission Control Program LAC 33:III Chapter 51	EXEMPT – Emissions from the combustion of Group I virgin fossil fuels are exempt from the requirements of this regulation.
EQT 7 -8 Tanks	Control of Emissions of Organic Compounds – Storage of Volatile Organic Compounds - LAC 33:III.2103	DOES NOT APPLY – Tanks have a nominal storage capacity less than 420,000 gallons.
EQT 7, 8, & 10 Tanks	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, - 40 CFR 60 Subpart Kb	EXEMPT. Tank volume is less than 75 cubic meters.
EQT 9 Truck Loading	Volatile Organic Compounds – Loading [LAC 33:III.2107]	DOES NOT APPLY – Loading facilities for VOCs having a true vapor pressure at loading conditions less than 1.5 psia are not subject to the control and monitoring requirements of LAC 33:III.2107.F
FUG 1 Fugitives	Fugitive Emission Control LAC 33:III.2121	DOES NOT APPLY – Regulation applies to petroleum refineries, natural gas processing plants, SOCFMI industry, MTBE manufacturing plants, and polymer manufacturing plants. Shadyside Compressor Station does not qualify as any of the affected facility types.

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**Prevention of Significant Deterioration/Nonattainment Review**

PSD and Nonattainment Review are not required.

**Streamlined Equipment Leak Monitoring Program**

This facility does not have a Streamlined Equipment Leak Monitoring Program.

**MACT Requirements**

This facility does not require a MACT Analysis.

**Air Quality Analysis**

This facility does not require an Air Quality Analysis.

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

**V. PERMIT SHIELD**

This facility did not request a Permit Shield.

**VII. GLOSSARY**

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

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Hydrogen Sulfide ( $H_2S$ ) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides ( $NO_x$ ) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane ( $CH_4$ ), Ethane ( $C_2H_6$ ), Carbon Disulfide ( $CS_2$ )

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

$PM_{10}$  – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide ( $SO_2$ ) – An oxide of sulfur.

Sulfuric Acid ( $H_2SO_4$ ) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those,

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which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.